

## WHAT IS CLAIMED IS:

1. A method of allocating storage to a host in a computer network, said method comprising:

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performing path discovery;

identifying storage coupled to said computer network;

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mapping said storage to said host;

building a storage path database; and

storing said database.

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2. The method of claim 1, wherein said path discovery comprises:

querying a switch coupled to said host;

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detecting an indication that said storage is coupled to said switch via a first port;  
and

performing a query via said first port.

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3. The method of claim 1, wherein said database is stored within said host.

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4. The method of claim 3, further comprising storing said database on said storage.

5. The method of claim 3, further comprising:

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detecting a failure of said host;

retrieving said stored database, in response to detecting said failure; and

utilizing said database to re-map said storage to said host.

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6. The method of claim 5, further comprising:

performing a check on said database subsequent to said retrieving, wherein said check comprises determining whether said database is valid; and

5       conveying a notification indicating said database is invalid, in response to determining said database is not valid.

10       7.     The method of claim 5, further comprising:  
performing a check on said database subsequent to said retrieving, wherein said check comprises attempting to access said storage; and

15       conveying a notification of a failure to access said storage, in response to detecting said storage is inaccessible.

20       8.     A computer network comprising:  
a network interconnect, wherein said interconnect includes a switching mechanism;  
a first storage device coupled to said interconnect; and  
a first host coupled to said interconnect, wherein said first host is configured to perform path discovery, identify said first storage coupled to said computer network, map said first storage to said host, build a storage path database, and store said database.

25       9.     The computer network of claim 8, wherein said path discovery comprises:  
querying said switching mechanism;  
30       detecting an indication that said first storage is coupled to said switching mechanism via a first port of said switching mechanism; and  
performing a query via said first port.

35       10.    The computer network of claim 8, wherein said database is stored locally within said host.

11. The computer network of claim 10, further comprising storing said database on said first storage device.

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12. The computer network of claim 10, wherein said host is further configured to:  
detect a failure of said host;

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retrieve said stored database, in response to detecting said failure; and  
utilize said database to re-map said first storage to said host.

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13. The computer network of claim 12, wherein said host is further configured to:  
perform a check on said database subsequent to retrieving said database, wherein  
said check comprises determining whether said database valid; and

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convey a notification indicating said database is invalid, in response to said  
determining said database is not valid.

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14. A host comprising:

a first port configured to be coupled to a computer network; and  
an allocation mechanism, wherein said mechanism is configured to perform path  
discovery, identify a first storage coupled to said computer network, map  
said first storage to said host, build a storage path database, and store said  
database.

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15. The host of claim 14, wherein said path discovery comprises:

querying a switch coupled to said first port;

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detecting an indication that said first storage is coupled to said switch via a port of  
said switch; and

performing a query via said port of said switch.

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16. The host of claim 14, further comprising a local storage device, wherein said database is stored within said local storage device.

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17. The host of claim 16, wherein said allocation mechanism is further configured to store said database on said first storage.

10 18. The host of claim 16, wherein said allocation mechanism is further configured to:

detect a failure of said host;

15 retrieve said stored database from said local storage device in response to detecting said failure; and

utilize said database to re-map said first storage to said host.

20 19. The host of claim 18, wherein said allocation mechanism is further configured to:

perform a check on said database subsequent to retrieving said database, wherein said check comprises determining whether said database is valid; and

25 convey a notification indicating said database is invalid, in response to determining said database is not valid.

30 20. The host of claim 14, wherein said allocation mechanism comprises a processing unit executing program instructions.

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21. A carrier medium comprising program instructions, wherein said program instructions are executable to:

35 perform path discovery;

identify storage coupled to a computer network;

map said storage to a host;

40 build a storage path database; and

store said database.

22. The carrier medium of claim 21, wherein said program instructions are further executable to:

5           query a switch coupled to said host;  
  
          detect an indication that said storage is coupled to said switch via a first port; and  
  
          perform a query via said first port.

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23. The carrier medium of claim 21, wherein said database is stored within said host.

15   24. The carrier medium of claim 23, wherein said program instructions are further executable to store said database on said storage.

20   25. The carrier medium of claim 23, wherein said program instructions are further executable to:

          detect a failure of said host;  
  
          retrieve said stored database, in response to detecting said failure; and  
25           utilize said database to re-map said storage to said host.

30   26. The carrier medium of claim 25, wherein said program instructions are further executable to:

          perform a check on said database subsequent to retrieving said stored database,  
                  wherein said check comprises determining whether said database is valid;  
                  and  
35           convey a notification indicating said database is invalid, in response to  
                  determining said database is not valid.

40   27. The carrier medium of claim 25, wherein said program instructions are further executable to:

perform a check on said database subsequent to retrieving said stored database,  
wherein said check comprises attempting to access said storage; and

conveying a notification of a failure to access said storage, in response to  
5 detecting said storage is inaccessible.

28. The carrier medium of claim 21, wherein said program instructions are native to  
an operating system executing within a host.

10 29. A method of identifying and allocating storage to a host in a computer network,  
said method comprising:

identifying storage coupled to said computer network;

15 identifying a path between said identified storage and said host;

mapping said identified storage to said host;

building a storage path database;

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storing said database; and

automatically initiating an attempt to re-map said storage to said host, wherein

said automatic attempt comprises detecting a failure of said host,

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retrieving said stored database, and utilizing said database to re-map said  
storage to said host.

30. A computer network comprising:

a network interconnect;

a first storage coupled to said interconnect; and

5 a first host coupled to said interconnect, wherein said first host is configured to:

identify said first storage;

identify a path between said first storage and said host;

map said first storage to said host;

build a storage path database;

10 store said database; and

automatically initiate an attempt to re-map said storage to said host,

wherein said host is configured to detect a failure of said host,

retrieve said stored database in response to detecting said failure,

and utilize said database to re-map said first storage to said host.

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31. A host comprising:

a first port configured to be coupled to a computer network; and

20 an allocation mechanism, wherein said mechanism is configured to:

identify storage coupled to said computer network;

identify a path between said storage and said host;

25 map said storage to said host;

build a storage path database;

store said database; and

automatically initiate an attempt to re-map said storage to said host,  
wherein said host is configured to detect a failure of said host,  
retrieve said stored database in response to detecting said failure,  
and utilize said database to re-map said first storage to said host.

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32. A carrier medium comprising program instructions, wherein said program instructions are executable to:

10 identify storage coupled to a computer network;

identify a path between said storage and a host;

map said storage to said host;

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build a storage path database;

store said database; and

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automatically initiate an attempt to re-map said storage to said host, wherein in performing said attempt said instructions are executable to detect a failure of said host, retrieve said stored database in response to detecting said failure, and utilize said database to re-map said first storage to said host.

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